at the distal tips of terminals 58 with current flow from array 12 through the target tissue to the return electrode, the high electric field intensities causing ablation of tissue 52 in zone 88.

<u>IN THE CLAIMS:</u>

Please delete claims 1-79 and add the following new claims:

--80. (New) A method for applying electrical energy to a target site on a structure on or within a patient's body, the method comprising:

positioning an electrode terminal into at least close proximity with the target site in the presence of an electrically conducting fluid;

positioning a return electrode within the electrically conducting fluid to generate a current flow path between the electrode terminal and the return electrode; and

applying a high frequency voltage difference between the electrode terminal and the return electrode such that an electrical current flows from the electrode terminal, through the region of the target site, and to the return electrode through the current flow path.

SUB B2

81. (New) The method of claim 80 wherein the electric current flows substantially through the electrically conducting fluid while minimizing electric current flow passing through the body structure.

82. (New) The method of claim 80 wherein at least a portion of the electric current passes through the body structure.

SUB B3

83. (New) The method of claim 80 further comprising immersing the target site within a volume of the electrically conductive fluid and positioning the return electrode within the volume of electrically conductive fluid to generate the current flow path between the target site and the return electrode.

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4 ~~84~~. (New) The method of claim 1 ~~80~~ further comprising delivering the electrically conductive fluid to the target site.

9 ~~85~~. (New) The method of claim 1 ~~80~~ wherein the electrode terminal comprises a single active electrode disposed near the distal end of an instrument shaft.

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10 ~~86~~. (New) The method of claim 1 ~~80~~ wherein the electrode terminal includes an array of electrically isolated electrode terminals disposed near the distal end of an instrument shaft.

11 ~~87~~. (New) The method of claim 1 ~~80~~ wherein the electrically conductive fluid comprises isotonic saline.

12 ~~88~~. (New) The method of claim 1 ~~80~~ including independently controlling current flow to the electrode terminal based on electrical impedance between the electrode terminal and the return electrode.

13 ~~89~~. (New) The method of claim 1 ~~80~~ wherein the return electrode is spaced from the electrode terminal such that when the electrode terminal is brought adjacent a tissue structure immersed in electrically conductive fluid, the return electrode is spaced from the tissue structure and the electrically conductive fluid completes a conduction path between the electrode terminal and the return electrode.

SUB B4

~~90. (New) The method of claim 80, wherein the return electrode is located on the probe, further comprising an insulating matrix at the distal tip of the probe between the return electrode and the electrode terminal, the insulating matrix comprising an inorganic material.~~

15 ~~91~~. (New) The method of claim 14 ~~90~~ wherein the inorganic material is selected from the group consisting essentially of

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ceramic, glass and glass/ceramic compositions.

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~~92~~ 16. (New) The method of claim ~~90~~ 14 further comprising applying a sufficient voltage difference between the return electrode and the electrode terminal to effect the electrical breakdown of tissue in the immediate vicinity of the electrode terminal.

~~93~~ 17. (New) The method of claim ~~86~~ 1 further comprising measuring the temperature at the target site and limiting power delivery to the electrode terminal if the measured temperature exceeds a threshold value.

~~94~~ 18. (New) The method of claim ~~86~~ 1 further comprising applying a sufficient high frequency voltage difference to vaporize the electrically conductive fluid in a thin layer over at least a portion of the electrode terminal and to induce the discharge of energy to the target site in contact with the vapor layer.

~~95~~ 19. (New) The method of claim ~~94~~ 18 wherein at least a portion of the energy induced is in the form of photons having a wavelength in the ultraviolet spectrum.

~~96~~ 20. (New) The method of claim ~~94~~ 18 wherein at least a portion of the energy is in the form of energetic electrons.

~~97~~ 21. (New) The method of claim ~~86~~ 1 wherein the voltage is in the range from 500 to 1400 volts peak to peak.

~~98~~ 22. (New) The method of claim ~~86~~ 1 further comprising generating a voltage gradient between the electrode terminal and tissue at the target site, the voltage gradient being sufficient to create an electric field that causes the breakdown of tissue through molecular dissociation or disintegration.

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SUB B5

99. (New) The method of claim 84 wherein the electrode terminal is located on the distal end of a probe, and wherein the delivering step comprises supplying the electrically conducting fluid to a proximal end of an axial lumen within the probe and directing the fluid through a distal end of the axial lumen to the electrode terminal,

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100. (New) The method of claim 84 further including positioning a distal end of a fluid supply shaft adjacent the electrode terminal, the delivering step comprising directing the electrically conducting fluid through an inner lumen in the fluid supply shaft that is electrically connected to the return electrode and discharging the fluid through an open distal end of the supply shaft towards the electrode terminal.

101. (New) The method of claim 99 wherein the return electrode is an inner tubular member defining an axial lumen electrically connected to the inner tubular member, the delivering step including directing electrically conducting fluid through the inner lumen to the distal end of the probe over the electrode terminal.

102. (New) The method of claim 99 wherein the return electrode is an outer tubular member defining an axial passage between the outer surface of the probe and the inner surface of the outer tubular member, the delivering step including directing the electrically conducting fluid through the inner lumen to the distal end of the probe over the electrode terminal.

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103. (New) An electrosurgical probe for applying electrical energy to a tissue structure at a target site, the probe comprising:

a shaft having a proximal end and a distal end;

an electrode terminal having a tissue treatment portion disposed at or near the distal end of the shaft;

a return electrode coupled to the shaft and having an

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exposed fluid contact surface;

at least one connector disposed near the proximal end of the shaft for electrically coupling the electrode terminal to a high frequency voltage source; and

wherein the return electrode is spaced from the electrode terminal such that when the tissue treatment portion of the electrode terminal is brought adjacent a tissue structure immersed in electrically conductive fluid, the tissue treatment portion of the electrode terminal is positioned between the fluid contact surface of the return electrode and the tissue structure and the electrically conductive fluid completes a conduction path between the electrode terminal and the return electrode.

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104. (New) The probe of claim 103 wherein the return electrode is spaced about 0.5 to 25 mm from the electrode terminal in a direction away from the tissue structure when the electrode terminal is brought adjacent a tissue structure.

105. (New) The probe of claim 103 wherein the return electrode is positioned on the shaft proximal to the electrode terminal.

106. (New) The probe of claim 103 further comprising a power limiting element coupled to the electrode terminal for limiting power to the electrode terminal based on the electrical impedance between the electrode terminal and the return electrode.

107. (New) The probe of claim 103 wherein the electrode terminal extends a distance of about 0.05 to about 1.0 mm from the shaft.

108. (New) The probe of claim 103, further comprising a temperature sensor located adjacent the electrode terminal wherein the connector also electrically couples the temperature sensor to the high frequency voltage source.

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109. (New) The probe of claim 103 wherein the electrode terminal extends away from the shaft by a distance in the range from 0.00 mm to 3.0 mm.

110. (New) The probe of claim 103 further comprising an electrode array disposed at the distal end of the shaft, the electrode array comprising a plurality of electrode terminals.

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111. (New) The probe of claim 103, further comprising an insulating support positioned near the distal end of the probe between the return electrode and the electrode terminal and comprising an inorganic matrix material.

112. (New) The probe of claim 106 wherein the inorganic matrix material is selected from the group consisting essentially of glass, ceramic and glass/ceramic.

113. (New) The probe of claim 105 wherein the electrode array includes at least three electrically isolated terminals having substantially the same applied potential.

114. (New) The probe of claim 103 further comprising a single active electrode terminal, wherein the single active electrode terminal and the return electrode are configured to effect the electrical breakdown of tissue in the immediate vicinity of the electrode terminal when high frequency voltage is applied between the electrode terminal and the return electrode in the presence of electrically conducting fluid.

115. (New) The probe of claim 103 wherein current or voltage is limited to the electrode terminal based on impedance between the electrode terminal and the return electrode.

116. (New) The probe of claim 103 further comprising an active current limiting element coupled to the electrode

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terminal and comprising an impedance sensor adapted for coupling to a high frequency voltage source.

117. (New) The probe of claim 116 wherein the impedance sensor comprises means for measuring current flow for a given applied voltage.

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118. (New) The probe of claim 116 wherein the impedance sensor comprises a resonant series output circuit having a resonant frequency that changes with the capacitance of the load.

119. (New) The probe of claim 116 further comprising a passive current limiting element for limiting or interrupting current flow to the electrode terminal based on the impedance between the electrode terminal and the return electrode.

120. (New) The probe of claim 119 wherein the passive current limiting element is selected from the group consisting essentially of inductors, capacitors, resistors and combinations thereof.

121. (New) The probe of claim ? wherein the return electrode and the electrode terminal are positioned relative to each other such that the conduction path passes through the tissue structure at the target site.

122. (New) The probe of claim ? wherein the return electrode and the electrode terminal are positioned relative to each other such that the conduction path passes directly from the electrode terminal through the electrically conductive fluid to the return electrode.

123. (New) The probe of claim ? wherein the return electrode is spaced from the electrode terminal, and the return electrode and electrode terminal are configured such that, when

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the tissue treatment portion of the electrode terminal is brought adjacent a tissue structure in contact with electrically conductive fluid, and high frequency electrical energy is applied to the electrode terminal, the high frequency electrical energy is sufficient to effect the molecular breakdown of the tissue structure and to convert solid tissue cells at the target site directly into gaseous products of ablation.

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124. (New) The probe of claim 123 wherein the gaseous products of ablation comprise non-condensable gases.

125. (New) The probe of claim ? wherein the high frequency electrical energy is sufficient to vaporize at least a portion of the electrically conducting fluid at the target site.

126. (New) An electrosurgical system for applying electrical energy to a tissue structure at a target site, the system comprising:

a shaft having a proximal end and a distal end;

an electrode terminal disposed at or near the distal end of the shaft;

at least one connector disposed near the proximal end of the shaft for electrically coupling the electrode terminal to a high frequency voltage source; and

means for applying high frequency voltage to the electrode terminal and a return electrode in the presence of electrically conducting fluid such that an electrical current flows from the electrode terminal, and through the target site, to the return electrode through a current flow path in the electrically conducting fluid.

127. (New) The system of claim 126 wherein said applying means comprises a power supply, and a return electrode on the shaft spaced from the electrode terminal.

128. (New) The system of claim 126 wherein the

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electrode terminal comprises tungsten, and further comprising a ceramic insulating member between the electrode terminal and the return electrode.

129. (New) The system of claim 126 wherein the return electrode has a larger exposed surface area than the electrode terminal.

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130. (New) The system of claim 126 wherein the return electrode is axially spaced about 0.5 to about 5 mm from the electrode terminal.

131. (New) The system of claim 127 wherein the power supply applies a high frequency voltage difference in the range of about 500 to 900 volts peak-to-peak.

132. (New) The system of claim 126 wherein the electrode terminal has a contact area less than about 5 mm^2

133. (New) The system of claim 126, wherein the electrode terminal extends away from the shaft by a distance in the range from 0.00 mm to 3.0 mm.

134. (New) The system of claim 126 further comprising an electrode array disposed at the distal end of the shaft, the electrode array comprising a plurality of electrode terminals.

135. (New) The system of claim 126, further comprising an insulating support positioned near the distal end of the probe between the return electrode and the electrode terminal and comprising an inorganic matrix material, and wherein the inorganic matrix material is selected from the group consisting essentially of glass, ceramic and glass/ceramic.

136. (New) The system of claim 126 further comprising a single active electrode terminal, wherein the single active

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